What is claimed is:

1. A transgenic plant characterized by suppressed flowering, comprising a nucleic acid molecule comprising a floral organ selective regulatory element, operatively linked to a nucleotide sequence encoding a cytotoxic gene product, wherein said nucleic acid molecule is heritable by progeny thereof.

2. The transgenic plant of claim 1, wherein said floral organ selective regulatory element is selected from the group consisting of an *AGL2* regulatory element, *AGL4* regulatory element, *AGL9* regulatory element, and an *AP1* regulatory element.

3. The transgenic plant of claim 1, wherein said cytotoxic gene product is selected from the group consisting of diphteria toxic A chain, RNase T1, Barnase Rnase, ricin toxin A chain, and herpes simplex virus thymidine kinase (tk) gene.

4. The transgenic plant of claim 2, wherein said *AGL2* regulatory element has substantially the nucleotide sequence of *Arabidopsis AGL2* promoter SEQ ID NO:1, or an active fragment thereof.

5. The transgenic plant of claim 2, wherein said *AGL4* regulatory element has substantially the nucleotide sequence of *Arabidopsis AGL4* promoter SEQ ID NO:2, or an active fragment thereof.

6. The transgenic plant of claim 2, wherein said *AGL9* regulatory element has substantially the nucleotide sequence of *Arabidopsis AGL9* promoter SEQ ID NO:3, or an active fragment thereof.

7. The transgenic plant of claim 2, wherein said *AP1* regulatory element has substantially the nucleotide sequence of *Arabidopsis AP1* promoter SEQ ID NO:10, or an active fragment thereof.

8. A tissue derived from the transgenic plant of any of claims 1 to 7.

9. The tissue of claim 8, which is capable of non-vegetative propagation.

10. The tissue of claim 8, which is capable of vegetative propagation.

11. The plant of claim 1, wherein said plant is a woody plant.

12. The plant of claim 11, wherein said plant is a tree.

13. A method of producing a transgenic plant characterized by suppressed flowering, comprising introducing into a plant an exogenous nucleic acid molecule comprising a floral organ selective regulatory element, wherein said regulatory element is operatively linked to a nucleotide sequence encoding a cytotoxic gene product, whereby flowering is suppressed due to selective expression of said exogenous nucleic acid molecule in said floral organ, and wherein said nucleic acid molecule is heritable by progeny thereof.

14. The method of claim 13, wherein said floral organ selective regulatory element is selected from the group consisting of an *AGL2* regulatory element, *AGL4* regulatory element, *AGL9* regulatory element, and an *AP1* regulatory element.

15. The method of claim 14, wherein said *AGL2* regulatory element has substantially the nucleotide sequence of *Arabidopsis AGL2* promoter SEQ ID NO:1, or an active fragment thereof.

16. The method of claim 14, wherein said *AGL4* regulatory element has substantially the nucleotide sequence of *Arabidopsis AGL4* promoter SEQ ID NO:2, or an active fragment thereof.

17. The method of claim 14, wherein said *AGL9* regulatory element has substantially the nucleotide sequence of *Arabidopsis AGL9* promoter SEQ ID NO:3, or an active fragment thereof.

18. The method of claim 14, wherein said *AP1* regulatory element has substantially the nucleotide sequence of *Arabidopsis AP1* promoter SEQ ID NO:10, or an active fragment thereof.

19. The method of claim 13, wherein said cytotoxic gene product is selected from the group consisting of diphteria toxic A chain, RNase T1, Barnase Rnase, ricin toxin A chain, and herpes simplex virus thymidine kinase (tk) gene.

20. The method of claim 13, wherein the nucleic acid molecule is introduced into the plant by *Agrobacterium*-mediated transformation.

21. The method of claim 20, wherein *Agrobacterium tumefaciens* is used to introduce the nucleic acid molecule into the plant.

22. The method of claim 20, wherein *Agrobacterium rhizogenes* is used to introduce the nucleic acid molecule into the plant.

23. The transgenic plant of claim 1, wherein said plant is obtainable by a process comprising the steps of (i) introducing into a plant an exogenous nucleic acid molecule comprising a floral organ selective regulatory element, wherein said regulatory element is operatively linked to a nucleotide sequence encoding a cytotoxic gene product; (ii) identifying or selecting a population of plants whose flowering is suppressed; (iii) generating a progeny transgenic plant therefrom.

24. An isolated nucleic acid molecule, comprising a floral organ selective regulatory element, operatively linked to a nucleotide sequence encoding a cytotoxic gene product.

25. The isolated nucleic acid molecule of claim 24, wherein said regulatory element is selected from the group consisting of an *AGL2* regulatory element, *AGL4* regulatory element, *AGL9* regulatory element, and an *AP1* regulatory element.

26. The isolated nucleic acid molecule of claim 25, comprising at least fifteen contiguous nucleotides of *Arabidopsis AGL2* promoter SEQ ID NO:1.

27. The isolated nucleic acid molecule of claim 25, comprising at least fifteen contiguous nucleotides of *Arabidopsis AGL4* promoter SEQ ID NO:2.

28. The isolated nucleic acid molecule of claim 25, comprising at least fifteen contiguous nucleotides of *Arabidopsis AGL9* promoter SEQ ID NO:3.

29. The isolated nucleic acid molecule of claim 25, comprising at least fifteen contiguous nucleotides of *Arabidopsis AP1* promoter SEQ ID NO:10.

30. The isolated nucleic acid molecule of claim 24, wherein said cytotoxic gene product is selected from the group consisting of diphteria toxic A chain, RNase T1, Barnase Rnase, ricin toxin A chain, and herpes simplex virus thymidine kinase (tk) gene.

31. A kit for producing a transgenic plant characterized by suppressed flowering, comprising packaging containing a plant expression vector comprising a floral organ selective regulatory element operatively linked to a nucleotide sequence encoding a cytotoxic gene product, and instructions for transforming a susceptible plant with said vector.

32. The kit of claim 31, wherein said regulatory element is selected from the group consisting of an *AGL2* regulatory element, *AGL4* regulatory element, *AGL9* regulatory element, and an *AP1* regulatory element.

33. The kit of claim 31, wherein said cytotoxic gene product is selected from the group consisting of diphteria toxic A chain, RNase T1, Barnase Rnase, ricin toxin A chain, and herpes simplex virus thymidine kinase (tk) gene.